

ABSTRACT

Embodiments of the present claimed invention utilize video imaging to analyze the availability of parking spaces. In one embodiment, a computer is used to process video images of a parking location to determine if a parking space is available. In another embodiment of the present claimed invention, the type of parking space is also considered. For example, the system can distinguish between a compact parking space and a full-size parking space and direct vehicles to the appropriate parking space. This distinction becomes important when the optimization of space for parking in a crowded area is desired. Additionally, wireless communication can be used to deliver information regarding vacant parking spaces to motorists. Furthermore, embodiments of the present invention incorporate a global positioning system (GPS) to provide location dependent parking availability to motorists. For example, a motorist can request the location of the closest available parking space by pressing a button inside the vehicle. In one embodiment, audible directions are provided to guide a motorist to the available parking location. In addition to using wireless communications to provide parking availability to motorists, the location of an available parking space can be printed on a ticket and provided to the motorist when entering a parking facility or can be displayed on a sign to alert motorists of available parking spaces.